



AF/3761/8

PTO/SB/21 (08-03)

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**TRANSMITTAL  
FORM**

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	08/661,834	
	Filing Date	11 June 1996	
	First Named Inventor	Kronzer	
	Art Unit	3761	
	Examiner Name	A. Lewis	
Total Number of Pages in This Submission	34	Attorney Docket Number	45751US012

**ENCLOSURES (Check all that apply)**

<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input checked="" type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
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<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	<b>Remarks</b>	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	Appeal Brief in triplicate	

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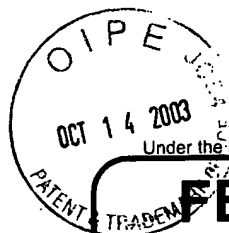
Firm or Individual name	Frank Rosenberg
Signature	<i>Frank Rosenberg</i>
Date	6 October 2003

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I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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# **FREE TRANSMITTAL**

## **for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$) **330**

### **Complete if Known**

Application Number	08/661,834
Filing Date	JUNE 11, 1996
First Named Inventor	KRONZER
Examiner Name	A. Lewis
Art Unit	3761
Attorney Docket No.	4575/US012

### **METHOD OF PAYMENT (check all that apply)**

☐ Check ☒ Credit card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit Account Number: 501749  
Deposit Account Name: Frank Rosenberg

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

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### **FEE CALCULATION**

#### **1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
<b>SUBTOTAL (1)</b> (\$)			

#### **2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims:  - 20\*\* =  X  =   
Independent Claims:  - 3\*\* =  X  =   
Multiple Dependent:  =

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)** (\$)

\*\*or number previously paid, if greater; For Reissues, see above

### **FEE CALCULATION (continued)**

#### **3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)	Fee Code (\$)	Fee Code (\$)		
1051 130	2051 65			Surcharge - late filing fee or oath	
1052 50	2052 25			Surcharge - late provisional filing fee or cover sheet	
1053 130	2053 130			Non-English specification	
1812 2,520	1812 2,520			For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*			Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*			Requesting publication of SIR after Examiner action	
1251 110	2251 55			Extension for reply within first month	
1252 420	2252 210			Extension for reply within second month	
1253 950	2253 475			Extension for reply within third month	
1254 1,480	2254 740			Extension for reply within fourth month	
1255 2,010	2255 1,005			Extension for reply within fifth month	
1401 330	2401 165			Notice of Appeal	
1402 330	2402 165			Filing a brief in support of an appeal	330
1403 290	2403 145			Request for oral hearing	
1451 1,510	1451 1,510			Petition to institute a public use proceeding	
1452 110	2452 55			Petition to revive - unavoidable	
1453 1,330	2453 665			Petition to revive - unintentional	
1501 1,330	2501 665			Utility issue fee (or reissue)	
1502 480	2502 240			Design issue fee	
1503 640	2503 320			Plant issue fee	
1460 130	1460 130			Petitions to the Commissioner	
1807 50	1807 50			Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180			Submission of Information Disclosure Stmt	
8021 40	8021 40			Recording each patent assignment per property (times number of properties)	
1809 770	2809 385			Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385			For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385			Request for Continued Examination (RCE)	
1802 900	1802 900			Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** (\$) **330. -**

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### **SUBMITTED BY**

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Signature: Frank Rosenberg

Registration No. (Attorney/Agent): 37,068

(Complete if applicable)

Telephone: (925) 376-8416  
Date: 6 Oct. 2003

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PATENT  
Docket No.: 45751US012

#47  
DL  
107703

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

JOSEPH P. KRONZER ET AL.

Serial No.: 08/661,834

Filed: June 11, 1996

For: FIBROUS FILTRATION FACE MASK

**Box AF**

Group Art Unit: 3761

Examiner: Aaron J. Lewis

**BRIEF ON APPEAL**

Board of Patent Appeals and Interferences  
Commissioner for Patents  
Washington, D.C. 20231

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Dear Sir:

This Appeal Brief is submitted in accordance with the terms of 35 U.S.C. § 134 and 37 C.F.R. § 1.192 in response to the final Office Communication mailed July 31, 2003. Appellants furnish the Appeal Brief in triplicate. The processing fee of \$330.00 (37 C.F.R. § 1.17(c)) is attached. Please charge any additional fees to Deposit Account No. 50-1749.

**I. Real Party In Interest**

The Minnesota Mining and Manufacturing Company and the 3M Innovative Properties Company, both of St. Paul, Minnesota, are the real parties in interest.

**II. Related Appeals and Interferences**

Appellants are unaware of any pending related appeals or interferences. The Board has previously ruled on one appeal in the parent application and one appeal in this application.

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### **III. Status of Claims**

Claims 25-37 are pending in this application. Claims 25-37 have been rejected under 35 U.S.C. § 103 and are the subject of this appeal.

### **IV. Status of Amendments**

No amendments have been filed after the final rejection.

### **V. Summary of the Invention**

Appellants' invention is a fibrous filtration face mask that is capable of maintaining low degrees of surface fuzz. Persons who wear cup-shaped fibrous filtration face masks have complained that the fibers in the mask create a tickling sensation that makes them want to scratch their face. Because fibrous filtration face masks are worn to protect wearers from breathing impurities in the air and/or protect others from being exposed to impurities exhaled by the wearer, persons wearing such masks must resist displacing the mask from their face to relieve the itching sensation. Otherwise, the wearer may risk exposing themselves or others to potentially dangerous substances.

The appellants have significantly alleviated the surface fuzz problem by providing a face mask that includes a non-woven fibrous layer that is molded into a cup-shaped configuration, where the fibrous layer contains at least about 40 weight percent thermally bonding fibers and at least about 10 weight percent bicomponent fibers. The molded, cup-shaped, non-woven fibrous layer has a surface fuzz value of not less than 7.5 after being subject to a surface fuzz abrasion test. If the bicomponent fiber content is 85 weight percent or greater, the surface fuzz value exceeds 8.0. The face mask of this construction may be assembled in accordance with the method that was patented by appellants in U.S. Patent No. 5,307,796.

### **VI. Issues Presented**

1. What is the proper interpretation of claim 25?
2. What is the proper interpretation of claim 32?
3. Are claims 25 and 32 obvious to a person of ordinary skill in view of Dyrud under 35 U.S.C. § 103?

4. Are dependent claims 27, 28, 31, 33 and 35-37 obvious to a person of ordinary skill in view of Dyrud under 35 U.S.C. § 103?

## **VII. Grouping of Claims**

In view of the rejections of record, the following groups of rejected claims will stand or fall together:

1. Claims 25, 26, 27, 29 and 30;
2. Claim 32;
3. Claims 28, 31, 33 and 35-37.

## **VIII. Argument**

### **I. Interpretation of Claim 25**

The Board of Appeals has made contradictory interpretations of claim 25.

#### **A. The Board Correctly Interpreted Claim 25 In Its DECISION ON APPEAL**

In the DECISION ON APPEAL (Paper No. 40), the Board reversed the rejection based on the second paragraph of section 112. On pages 3-4 of the Decision, the Board explained the meaning of the claim language “with the proviso that if the bicomponent fiber content is 85 weight percent or greater, then the surface fuzz value exceeds 8.0.” As stated by the Board:

the claim states that the non-woven fibrous layer have a fuzz value of not less than 7.5  
unless the bicomponent fiber content is 85 weight percent or greater, in which case the  
fuzz value requirement must exceed 8.0

Decision On Appeal, page 4, lines 12-14 (emphasis in original).

Appellants agree completely with the Board’s interpretation in the DECISION ON APPEAL.

#### **B. The Board Incorrectly Interpreted Claim 25 In Its ON REQUEST FOR REHEARING**

On pages 4-5 the ON REQUEST FOR REHEARING (Paper No. 42), the Board introduced a new, contradictory, and incorrect interpretation of claim 25. This new interpretation is wrong because it ignores “the proviso that if the bicomponent fiber content is 85 weight percent or greater, then the

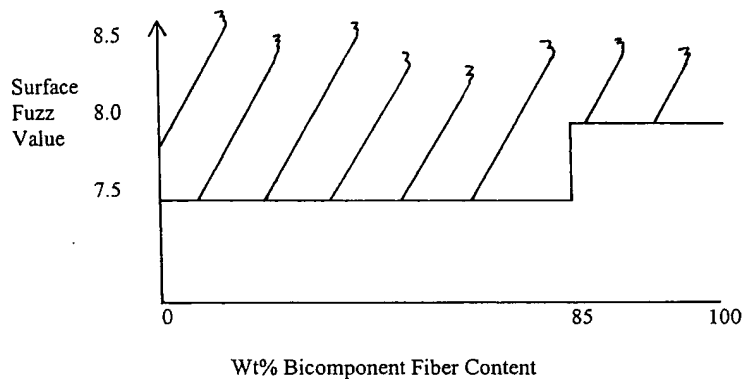
surface fuzz value exceeds 8.0.” The term “optionally” in claim 25 applies only to the staple fibers. The term “optionally” cannot apply to the proviso because (1) it is clear from reading the claim that the proviso applies to the non-woven fibrous layer and not the staple fibers, and (2) an optional proviso would have no meaning; in other words, an optional proviso would not qualify anything.

The American Heritage Dictionary defines “proviso” as a clause in a document making a qualification or condition. In this case, it sets the condition that if the bicomponent fiber content is 85 weight percent or greater, then the surface fuzz value exceeds 8.0. A plain reading of claim 25 makes it clear that a non-woven fibrous layer having a bicomponent fiber content of less than 85% has a surface fuzz of at least 7.5, and a non-woven fibrous layer having a bicomponent fiber content of at least 85% has a surface fuzz of at least 8.0.

Dependent claim 27 further supports the correct interpretation of claim 25. Claim 27 states in whole “The face mask of claim 25, wherein the surface fuzz value is not less than 8.0 regardless of bicomponent fiber content.” The phrase “regardless of bicomponent fiber content” would be meaningless if the one ignored (i.e., rendered optional) the proviso of claim 25.

Therefore, the interpretation of claim 25 in the ON REQUEST FOR REHEARING must be reversed in favor of the interpretation in the Board’s DECISION ON APPEAL.

The following chart shows what is being claimed:



## **II. Interpretation of Claim 32**

For the purposes of this appeal, the relevant parts of claim 32 are identical to claim 25 except that claim 32 does not recite the term “optionally.” Claim 25 is very clear that staple fibers are optional. As recognized by the Board in the DECISION ON APPEAL, claim 25 unambiguously states that the non-woven fibrous layer has a surface fuzz of at least 7.5 “unless the bicomponent fiber content is 85 weight percent or greater, in which case the fuzz value requirement must exceed 8.0.”

If the term “optionally” is important to the misinterpretation of the proviso of claim 25, then claim 32 should still be interpreted correctly since it does not contain the term “optionally.”

### **III. Claims 25-37 Are Not Obvious Over Dyrud**

#### **A. Under The Correct Claim Interpretation, All The Pending Claims Are Patentable Over Dyrud**

The prosecution history of this application is reminiscent of the movie “Groundhog Day” in which the main character awakens each day to find that he is reliving the exact same events as the previous day. In this case, Appellants are appealing the exact same rejection that Applicants have already appealed. Rather than reiterate the same arguments that were made in the first Appeal, the following section will focus on the new comments that the Examiner added since the remand by the Board.

There appear to be no dispute as to nonwoven layers containing 85% or less of bicomponent fibers. As shown in Comparative Examples 24 and 25 (see Table 1 of the specification), nonwoven layers containing 85% or less of bicomponent fibers have average surface fuzz values substantially less than 7.5 (5.0 and 6.0 for 70% and 85%, respectively).<sup>1</sup> Thus, the nonwoven fibrous layers of Dyrud containing 85% or less of bicomponent fibers would not inherently possess a surface fuzz value of at least 7.5.

On remand from the Board, the Examiner issued an Office Action that was mailed on May 16, 2003. In the Response to Arguments section on page 6 of the Office Action, the Examiner has acknowledged that Dyrud is not effective prior art for surface fuzz values exceeding 8.0.<sup>2</sup> Under the proper claim interpretation, all the claimed non-woven fibrous layers having a bicomponent fiber content of 85% or greater have surface fuzz values exceeding 8.0. Therefore, all claimed masks, both below and above 85% bicomponent fibers, are patentable over Dyrud.

In other words, it appears that the principle unresolved issue is claim interpretation. If the claims are interpreted as in the DECISION ON APPEAL, then there appears to be agreement that the

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<sup>1</sup> In the Office Communication mailed July 31, 2003, the Examiner incorrectly asserted that Examples 24 and 25 do not contain at least 40% thermally bonding fibers. This is wrong because bicomponent fibers are thermally bonding fibers. See Appellants’ specification at page 3, lines 13-15, page 6, lines 20-26, and page 8, line 37 - page 9, line 2.

<sup>2</sup> Appellants have argued in the previous Appeal and Request for Reconsideration that, based on the correct claim interpretation, Dyrud does not enable nor inherently anticipate or render obvious the claimed invention. In the Response to Arguments, the Examiner has acknowledged that these arguments are “persuasive;” however, the Examiner has rejected these arguments in view of the new claim interpretation in the On Request for Rehearing.

claims are patentable over Dyrud. If the claims are misinterpreted as in the ON REQUEST FOR REHEARING, then there is not agreement.

**B. Under Any Claim Interpretation, Claims 28, 31, 33 and 35-37 Are Patentable Over Dyrud**

Claims 28, 31, 33 and 35-37 recite surface fuzz values of 8.4 or greater regardless of bicomponent fiber content. As discussed above, the Examiner has acknowledged that Dyrud is not a valid prior art reference for surface fuzz values greater than 8.0. Since there is no dispute that claims 28, 31, 33 and 35-37 recite surface fuzz values greater than 8.0, the section 103 rejection of these claims should be withdrawn.

**C. Under Any Claim Interpretation, All the Pending Claims Are Patentable Over Dyrud**

Under either interpretation, the claims are additionally patentable because (1) there is no motivation to modify the Dyrud reference and (2) in view of Appellants' showing of unexpected results.

Dyrud broadly disclosed use of 25 to 100% bicomponent fibers. None of Dyrud's examples use 100% bicomponent fibers, and there is no suggestion of any special desirability of masks made from 100% bicomponent fibers. As the Federal Circuit discussed in *Ultradent*, "Even if the . . . tests confirm [defendant's] contention that the compositions containing 3% and 5% carboxymethylene provide the level of viscosity and stickiness required by the claims of the [plaintiff's] patent, that does not mean that the claimed matrix material is necessarily described by the [cited] patent. . . . [T]here are many possible compositions that could be made within the range of carboxymethylene concentration 0.05% to 5% that the [cited] patent discloses. [Defendant's] burden at trial was to show that the [cited] patent would describe to one of skill in the art . . . combinations meeting the limitations of the claims, from among the many possible candidates." *Ultradent Prod., Inc. v. Life-Like Cosmetics, Inc.*, 127 F.3d 1065, 44 U.S.P.Q.2d 1336 (Fed. Cir. 1997). See also *Suntiger, Inc. v. Scientific Research Funding Group*, 189 F.3d 1327, 81 U.S.P.Q.2d 1811 (Fed. Cir. 1999) citing *In re Ruschig*, 379 F.2d 990, 154 U.S.P.Q. 122 (C.C.P.A. 1967) ("The case law makes clear that disclosure of a generic expression encompassing a large number of possible variants is not a description of all of them.") Thus, there is no motivation in the prior art to select 100% bicomponent fibers amongst Dyrud's generic disclosure of a broad range of fiber compositions.



Second, even if a *prima facie* case of obviousness had been established, the unexpected and superior results establish patentability over the alleged *prima facie* case of obviousness. As stated by the Board:

The specification goes on to state that "[a] comparison of the results of these examples with examples 1-23 demonstrate that the method of the present invention provides unexpected superior results over hot molding processes for forming shaping layers of thermally bonding fibers." If a fuzz value of greater than 8.0 is considered to be the criterion for "superior," 14 of the 26 averages meet this standard.

**Be that as it may**, the issue before us is whether shells made in accordance with the Dyrud method fall within the scope of claim 25.

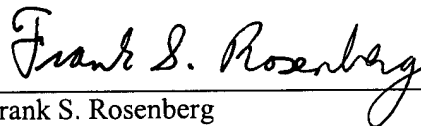
Decision On Appeal, page 8 (emphasis added). From the above-quoted statement, it appears that the Board does not dispute that applicants have shown "unexpected superior results." Even if Dyrud established a *prima facie* case of obviousness over the claimed invention (which it does not), the unexpected superior results would overcome that *prima facie* case.

### IX. Conclusion

For the foregoing reasons, appellants respectfully submit that the Examiner has erred in rejecting this application under 35 U.S.C. § 103. Please reverse the Examiner on all counts.

Dated this \_\_\_<sup>th</sup> day of October, 2003.

Respectfully submitted,



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## APPENDIX

25. A fibrous filtration face mask for filtering contaminants and/or particulate matter, which comprises:

- (a) a means for securing the mask to the face of the wearer; and
- (b) a non-woven fibrous layer attached to the securing means and containing (i) at least about 40% thermally bonding fibers based on the weight of the fibers in the non-woven fibrous layer, at least about 10 wt. % of the fibers in the non-woven fibrous layer being bicomponent fibers, and optionally (ii) staple fibers, the non-woven fibrous layer being molded in a cup-shaped configuration and having a surface fuzz value of not less than 7.5 after being subjected to a surface fuzz abrasion test, with the proviso that if the bicomponent fiber content is 85 weight percent or greater, then the surface fuzz value exceeds 8.0.

26. The face mask of claim 25, wherein the mask has at least two non-woven layers containing bonded thermally bonding fibers, the first non-woven layer containing about 60 wt. % bicomponent fibers and about 40 wt. % staple fibers, the second non-woven layer containing about 70 wt. % bicomponent fiber and about 30 wt. % binder fiber, the first layer being located on the inside of the second layer, and wherein the mask has a filtration layer containing blown microfibers located between the first and second non-woven layers.

27. The face mask of claim 25, wherein the surface fuzz value is not less than 8.0 regardless of bicomponent fiber content.

28. The face mask of claim 25, wherein the surface fuzz value is not less than 9.0 regardless of bicomponent fiber content.

29. The face mask of claim 25, wherein the bicomponent fiber content is at least 50 wt %.

30. The face mask of claim 25, wherein the bicomponent fiber content is at least 20 weight percent.

31. The face mask of claim 25, wherein the surface fuzz value is not less than 8.4 regardless of bicomponent fiber content.

32. A fibrous filtration face mask, which comprises:

- (a) a harness; and
- (b) a nonwoven fibrous layer attached to the harness and containing at least 40 weight percent thermally bonding fibers based on the weight of the fibers in the nonwoven fibrous layer, at least 10 weight percent of the fibers in the nonwoven fibrous layer being bicomponent fibers, the non-woven fibrous layer being molded in a cup-shaped configuration and having a surface fuzz value of not less than 7.5 after being subjected to a surface fuzz abrasion test, with the proviso that if the bicomponent fiber content is 85 weight percent or greater, then the surface fuzz value exceeds 8.0.

33. The fibrous filtration face mask of claim 32, wherein the nonwoven fibrous layer contains at least 20 weight percent bicomponent fibers, 0 to 80 weight percent binder fibers, and 0 to 50 weight percent staple fibers, based on the weight of fibrous material in the nonwoven fibrous layer, and wherein the nonwoven fibrous layer supports a filtration layer that contains melt-blown microfibers.

34. The fibrous filtration face mask of claim 32, wherein the nonwoven fibrous layer consists essentially of at least 20 weight percent bicomponent fibers, 0 to 80 weight percent binder fibers, and 0 to 50 weight percent staple fibers, based on the weight of fibrous material in the nonwoven fibrous layer, and wherein the nonwoven fibrous layer supports a filtration layer that contains melt-blown microfibers.

35. The face mask of claim 25, wherein the surface fuzz value is not less than 9.5 regardless of bicomponent fiber content.

36. The face mask of claim 32, wherein the surface fuzz value is not less than 9.0 regardless of bicomponent fiber content.

37. The face mask of claim 32, wherein the surface fuzz value is not less than 9.1 regardless of bicomponent fiber content.